

REMARKS

In light of the above amendatory matter and remarks below, reconsideration and allowance of this application are respectfully solicited.

In the Office Action under reply, U.S. Patent 5,838,383 (Chimoto) was relied upon yet again to reject all the claims. Claims 1-2, 7-9, 13-14 and 19-21 were rejected as being obvious in view of Chimoto. Chimoto once again was combined with U.S. Patent 6,198,479 (Humpleman) to reject claims 6 and 18. Chimoto was combined once more with U.S. Patent 6,469,742 (Trovato) to reject claims 10-12 and 22-25. No claims are allowed.

These rejections of the claims were set out in the previous Office Actions of December 1, 2008 and June 11, 2009 and are repeated here.

Reference is made to the remarks and arguments submitted February 26, 2009 and August 11, 2009 in response to the repeated rejections of claims 1, 2, 6-14 and 18-25. Those remarks and arguments are repeated here; and in the interest of efficiency, the Examiner's attention is respectfully directed once again to those remarks and arguments.

The present amendment is intended to emphasize the differences between the present invention and Chimoto. For the purpose of argument only, let it be assumed that Applicants' claimed "digital signal processing blocks" are analogous to Chimoto's "modules." For comparison with Chimoto, claim 1 states that each of applicants' modules controls hardware that is associated with that module. To do this, each module includes a driver for driving that hardware and a processing unit (shown as a local CPU in, for example, applicants' Figure 7). Now, applicants' host processing block (or host CPU) supplies a general-purpose script type command (defined in the claim as a high layer command) to a module. This high layer command

is generic because it simply commands the performance of a function (e.g. "receive frequency of channel X," or "enlarge the screen," or "draw a circle," such as described at page 10 of applicants' specification) without supplying parameters specific to that function. The local CPU in Applicants' module interprets the high layer command to activate the hardware driver which, in turn, drives the associated hardware. Consequently, if a module is changed, for example, if a new version of that module is used, or if the module from a different manufacturer is connected, there is no need to reprogram Applicants' host CPU to conform to that new module. Rather, the same high layer command can be supplied to the new module; and the local CPU in that new module will interpret the high layer command to activate the hardware driver in that new module.

In contrast, Chimoto fails to describe the structure in his modules. There is no suggestion that his module includes both a local CPU and a hardware driver. The fact that Chimoto must send to a module specific "parameters" from his host CPU that uniquely control the module means that when a module is changed, the parameters sent to that new module likewise must change so as to conform to the unique characteristics of that module. Consequently, when Chimoto replaces a module, he must reprogram his host CPU to send parameters that are compatible with that module. This task of reprogramming the host CPU is obviated by Applicants' use of a module that is associated with hardware and that contains a driver for that hardware and a local CPU.

In attempting to find elements in Chimoto that correspond to Applicants' claimed features, the Examiner refers to Chimoto's Direct Memory Access device 312 as the "hardware driver." It is respectfully submitted, one of ordinary skill in the art recognizes that a DMA is not a hardware driver and does not function as one.

The Examiner also contends that the parameters supplied by Chimoto to his various modules are "general-purpose script type command[s] that [are] interpreted by the processing unit in" Chimoto's modules "to perform the function generally described by the high layer command." In support of this contention, the Examiner refers to the same portions in Chimoto that had been relied upon in the aforementioned previous office actions. Applicants' representative repeats his previous argument: there is no disclosure or suggestion in Chimoto that Chimoto's parameters are high layer commands that are "free of those functionality instructions that control individual ones of said predetermined functions of the hardware driver," and are "general-purpose script type command[s] that [are] interpreted by the processing unit in the digital signal processing block... to perform the function generally described by said high layer command," and are "not... on a real time basis," as recited by, for example, Applicants' claim 1.

In the Office Action under reply, the Examiner argues that the modules of Chimoto are the same as Applicants' claimed "digital signal processing blocks" because, according to the Examiner, at least some of Chimoto's modules have hardware drivers for driving the hardware associated with that module and a processing unit for activating that hardware driver. Applicants' representative respectfully disagrees with this interpretation of Chimoto because, as noted above, Chimoto fails to disclose the structure or makeup of his modules. It is submitted that Chimoto's modules at best include drivers, but there is no suggestion in Chimoto that his modules include "a processing unit" to interpret the high layer command supplied thereto for activating the driver.

At page 6 of the Office Action under reply, when discussing Chimoto's DMA 312 the Examiner contends that the parameters supplied to the DMA by Chimoto's CPU 313 inherently are not transmitted on a real time basis when data is in the process of being transferred on the bus in order to avoid transfer errors. Applicants' representative respectfully disagrees that Chimoto

discloses commands from his CPU 313 that are not on a real-time basis, that are general-purpose script type command and that are free of functionality instructions that control individual drivers. The Examiner has not pointed to any disclosure in Chimoto to dispute this.

Once again, it is not clear if the Examiner is relying on Official Notice that it would be obvious to modify Chimoto by having his CPU 313 send high layer commands to each driver; and to modify each driver to include a processing unit that, in turn, interprets high layer commands to supply specific driver parameters to a driver unit. While the Examiner asserts it is “notorious well known in the art to use high layer commands...” (see page 7 of the Office Action), he does not specifically rely upon Official Notice. Hence, it is not clear to Applicants’ representative whether or not Official Notice is invoked. Nevertheless, as argued previously, Applicants’ representative respectfully submits that reliance on Official Notice is improper. It has been held that there is reversible error when the Examiner relies upon official notice for the particular features claimed which are urged to be novel in the combination claimed and to therein contribute new or improved results. *Ex parte Nouel*, 158 USPQ 237 (Bd of Pat. App. and Int. 1967). See also, 37 CFR 1.104(c)(3):

(3) In rejecting claims the examiner may rely upon admissions by the applicant, or the patent owner in a reexamination proceeding, as to any matter affecting patentability and, insofar as rejections in applications are concerned, may also rely upon facts within his or her knowledge pursuant to paragraph (d)(2) of this section.

(d) Citation of references.

(2) When a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons.

If the Examiner is, in fact, relying upon Official Notice, Applicants' representative requests the Examiner provide support for such reliance; and if the Examiner is relying upon facts within his personal knowledge, an affidavit to that effect is requested.

In view of this significant difference between Applicants' claim 1 and the teachings of Chimoto, the withdrawal of the rejection of claim 1 as being obvious is respectfully solicited.

Claim 13 is directed to the method performed by the apparatus of claim 1. Claim 13 recites many of the limitations recited by claim 1 and discussed above. Since, as argued, Chimoto fails to disclose or suggest such limitations, it follows that claim 13 is patentably distinct over Chimoto for those reasons argued with respect to claim 1.

Humpleman was relied upon for describing a command embedded in a script of hypertext; and the hypertext is interpreted by a browser. But, Humpleman is not suggestive of Applicants' claimed high layer commands and the functions performed by those high layer commands.

Trovato was relied upon for describing the installation of software to control modules that might be added or substituted in a system. But, Trovato is notably silent with respect to Applicants' claimed high layer commands and the functions performed by those high layer commands.

Accordingly, even if Chimoto is supplemented by Trovato and/or Humpleman, the resultant combination still would not enable one of ordinary skill in the art to make and use Applicants' claimed invention.

Since dependent claims 2, 6-12, 14 and 18-25 all depend from a respective one of Applicants' independent claims, and thus include all of the recitations found in their respective

independent claim, it follows that these dependent claims are patentably distinct over Chimoto, taken alone or in combination with Trovato or Humpleman for those reasons discussed above.

For the foregoing reasons, the withdrawal of the rejections of all the claims and an indication of the allowance of the present application are respectfully solicited.

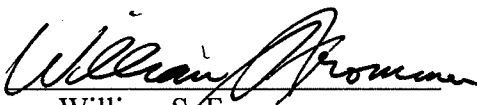
In the event the Examiner disagrees with any of the statements appearing above with respect to the disclosure in the cited references, it is respectfully requested that the Examiner specifically indicate those portions of the references providing the basis for a contrary view.

Applicants respectfully submit that claims 1-2, 6-14, and 18-25 are in allowable form; and this application is in condition for allowance. Early notice to this effect is respectfully requested.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

Respectfully submitted,

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